



Aeronautical Data Validation Platform

Standard ATM formats for aeronautical, weather and flight data (AIXM, WXXM & FIXM) are becoming intensively used across all boundaries in the worldwide aviation data exchange process. In an operational context data validation is essential as the precondition for safety, security and efficiency of operations.

Our award winning software performs syntactic and semantic validation of aviation data to ensure aeronautical data quality or to support additional business decision-making processes. It can test the conformance to SWIM compatible aviation data formats but also evaluate more complex, semantic Business Rules beyond the structural correctness. The platform also allows users to create and manage their own domain specific rule sets. The validation results are available either in the validation web client or through the flexible REST API as structured result sets or as annotations, embedded in the input document.

Use Cases

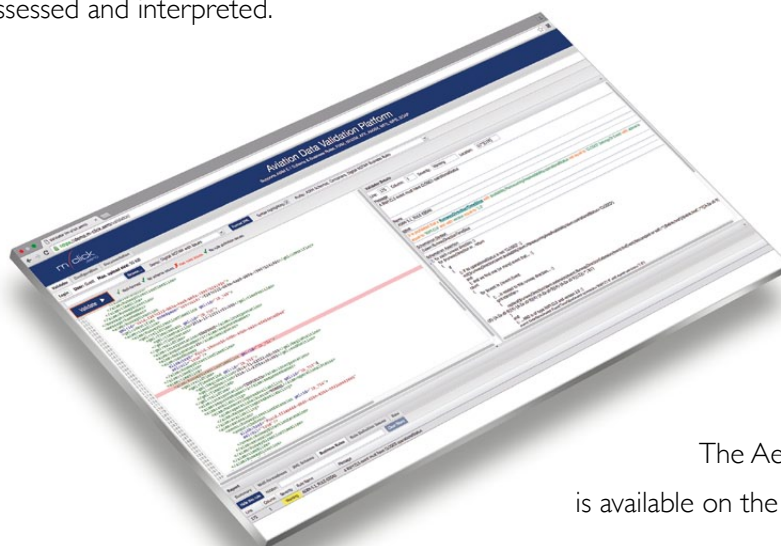
- ▲ SWIM-TI Data Validation Functional Block implementation
- ▲ AIRM Syntactic Validation (XML Schema)
- ▲ Semantic Validation using Application Specific Business Rules (SBVR)
- ▲ Geographic and Spatial Validation support
- ▲ Policy enforcement support
- ▲ Business process decision making support

Business Benefits

- ▲ Centralized validation platform for ANSPs, Airlines, Airports and ATM service providers
- ▲ Efficient data quality assessment for regional and global aeronautical data exchange
- ▲ Collaborative decision making support via B2B
- ▲ Policy enforcement in the SWIM-TI via B2B



Data validation is a cross cutting concern which affects all operational workflows. The validation platform contributes to the quality of aeronautical data having potential to identify and partially solve all problems which might occur when inaccurate, wrong formatted or syntactical or semantical incorrect information is consumed or provided by operational ATM services. In the context of data exchange, this service is the only guarantee that the data exchanged between autonomous regional SWIM domains remains correctly assessed and interpreted.



The Aeronautical Data Validation Platform
is available on the web at swim.m-click.aero/validator

Aeronautical Data Validation

- ▲ Syntactic schema validation in accordance with AIRM, ISRM
- ▲ Validation based on a wide range of XML schemas from the aviation domain.
- ▲ This includes all common versions of AIXM 5.1, FIXM, IWXXM, AFX, AMXM
- ▲ Common AIXM 5.1 extensions from EUROCONTROL and FAA
- ▲ Additional container formats like OGC WFS and WPS, SOAP, NM B2B etc.
- ▲ Semantic validation based on SBVR and Schematron business rule sets (profiles)
- ▲ Geographic and Spatial Business Rules using custom and ISO geometry functions
- ▲ Extensible domain specific business rules for AIXM, D-NOTAM and IWXXM
- ▲ Collaborative business decision-making support
- ▲ Web frontend and SWIM compatible API

Validation Management

- ▲ Extensible, application specific business rules
- ▲ Profile management
- ▲ Collaborative validation workflow

The Aeronautical Data Validation Platform is available both as cloud-based service and on-premise software.

m-click.aero GmbH
Am Borsigturm 40
13507 Berlin, GERMANY
solutions@m-click.aero
+49 30 35 10 25 36